

REMARKS

The Notice mailed from the US Patent Office on May 16, 2006, states that “[t]he amendment filed on 03/01/06 in reply to the restriction requirement of 02/10/06 is non-responsive because Applicant has not elected one nucleic acid sequence from SEQ ID NO:1, 2, 4, 5, 7, 8, and 20 as required by the restriction requirement . . . Applicant is required to elect one nucleic acid sequence to be examined with the elected Group I . . .”

First, Applicants note that in their response to the Restriction Requirement (dated March 1, 2006), Group II and not Group I was elected without traverse. Elected Group II (claims 7-9, 11-19 and 26) are drawn to an isolated polypeptide, transgenic plant comprising said polypeptide, and methods for using said polypeptide or said transgenic plants.

Applicants further note, however, that with respect to the invention of Group II, election of one polypeptide sequence from SEQ ID NOs:3, 6, and 9 is also required. According to the Examiner, each sequence constitutes “an independent and patentably distinct invention. Different sequences have different levels of effects . . . Searching all these sequences in a single application would create a search burden.

Accordingly, further to Applicants’ election of Group II (claims 7-9, 11-19 and 26), Applicants elect SEQ ID NO: 3, with traverse, as set forth below.

Applicants respectfully traverse and request reconsideration of the restriction of the claims in the present application to the extent that the amino acid sequences, SEQ ID NOs:3, 6, and 9, be rejoined and examined together. As explained below, these sequences clearly represent a single invention in that they are connected in design, operation, and effect, *i.e.*, are not independent inventions (MPEP §808.01).

From the outset, Applicants respectfully note that the amino acid sequences, SEQ ID NOs:3, 6, and 9, encompass a family of novel protein molecules (FRD3-1, FRD3-2, and FRD3-3, respectively) which are highly homologous and, therefore, are related structurally. Accordingly, these sequences vary only in scope and are, thus, clearly connected in design.

These sequences (SEQ ID NOs:3, 6 and 9) are also connected by operation and effect. Specifically, the proteins encompassed by SEQ ID NOs:3, 6, and 9 are capable of, for example, expressing metal deficiency responses, *e.g.*, iron deficiency responses. In particular, mutant FRD3 molecules, *e.g.*, FRD3-1, FRD3-2, and FRD3-3, are capable of expressing metal deficiency responses under both metal deficient and metal sufficient conditions. Mutant FRD3 molecules are also capable of, (1) misexpressing ferric chelate reductase activity, (2)

overaccumulating metals, *e.g.*, iron, or (3) causing chlorosis. Thus, overall, the proteins represented by SEQ ID NOs:3, 6, and 9 encompass a single invention.

Moreover, based on the common design and function of the amino acid sequences of claims 7-9, 11-19 and 26, the examination of these sequences together in the present application would not place an undue burden on the Examiner, since the prior art searches for these sequences would be co-extensive and, as such, would not require undue burden on the Examiner. As stated in the M.P.E.P.:

[i]f the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.
M.P.E.P. § 803 . . .


Moreover, Applicants respectfully invite the Examiner's attention to the policy set forth in 1192 O.G. 68. In accordance with that policy, a reasonable number of sequences are allowed to be claimed in a single application, and it has been determined that normally ten sequences constitute a reasonable number for examination purposes and, thus, up to ten independent and distinct sequences are often examined in a single application, without restriction (M.P.E.P. §804.4).

Based at least on the foregoing, Applicants request the Examiner to reconsider and withdraw the restriction requirement to the extent that all of the amino acid sequences (SEQ ID NOs:3, 6, and 9) be grouped together in the present application.

Applicants believe no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. DCI-111 from which the undersigned is authorized to draw.

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Respectfully submitted,

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